

**ESTRELLA FAN
FCD GAGE ID# 6893**

STATION DESCRIPTION

LOCATION – The gage location is on the western slope / fan of the Sierra Estrella Mountains in Rainbow Valley. The gage can be accessed by turning from Rainbow Valley Road east onto Riggs Road. Riggs Road is traveled 7 miles until electric transmission lines are met. Turn left and follow the lines for approximately 3.5 miles. A road/path heads into the wash to the gage site. Latitude N 33° 16' 08", Longitude W 112° 19' 15". Located in the NW1/4 SW1/4 NW1/4 S12 T2S R1W in the Avondale SE 7.5-minute quadrangle.

ESTABLISHMENT – The stage gage was established on April 30, 1993.

DRAINAGE AREA – Approximately 1.0 mi²

GAGE – The recording gage is a pressure transducer type instrument. It is located in the center of the channel. Elevation is 1,447.795 feet NAVD 1988, levels of January 24, 2001, or 0.00 feet gage height, levels of December 29, 1997. A second recording gauge is located in the crest gage line downstream from the recording/transmitting stage gage. The elevation of this pressure transducer is 1,408.66 feet NAVD 1988, levels of January 25, 2001.

There is no staff gage at this location.

There are twenty-eight crest gages located in the study area. See the crest gage table at the end of this document for more information.

ZERO GAGE HEIGHT – is defined as the location of the pressure transducer at the weather station.

HISTORY – No previous history at this location. A weather station and stage gage were installed on April 30, 1993. Twenty-eight crest gages were installed in the watershed. Reference markers ESTRFN and EFANCSG were established on December 27, 2000.

REFERENCE MARKS –

RM-ESTRFN is an FCD brass cap stamped "ESTRFN 2001" located near the weather station. Elevation is 1,456.825 feet NAVD 1988, levels of January 24, 2001. Northing 825641.486 feet; Easting 576299.825 feet. Gage height elevation is 9.030 feet.

RM-EFANCSG is an FCD brass cap stamped "EFANCSG 2001" located on the left edge of the crest gage line near crest gage zero. Elevation 1,405.088 feet NAVD 1988, levels of January 24, 2001. Northing 823192.977 feet; Easting 576582.452 feet.

CSG19RBR is a spike located near crest gage 19. It was established during the June 1993 survey. Elevation 1,414.401 feet NAVD 1988, levels of January 25, 2001. Northing 824778.022 feet; Easting 574883.384 feet.

RP1 is a red paint spot on the southeast corner of the concrete box near the weather station standpipe. Elevation = 7.21 feet gage height, levels of December 29, 1997. (Not surveyed in January 2001.)

CHANNEL AND CONTROL – The channel upstream of the gage is straight for approximately 500 feet and is well defined. Below the gage, the channel begins to 'fan out' and the channel disappears.

There is no natural or man-made control at the gage for low flows. For higher stages the channel becomes the control. However, just downstream of the station, the channel becomes distributory into a very wide floodplain.

RATING – The current rating is Rating #1. The rating was developed by an HEC-2 analysis following installation of the gage.

DISCHARGE MEASUREMENTS – Direct measurements would be difficult. Indirect methods could be used in a section at and above the gage.

POINT OF ZERO FLOW – The low point PZF in the channel at the weather station gauge is at 0.27 feet gauge height, levels of January 24, 2001.

FLOODS – Nothing significant since gage installation.

REGULATION – None known

DIVERSIONS – None known

ACCURACY – Fair

JUSTIFICATION – Study alluvial fans for data gathering

UPDATE – July 14, 2011
DE Gardner

CREST GAGE Table

Crest Gauge #	Elevation (feet)	Northing (feet)	Easting (feet)
0	1404.965	823194.938	576581.754
1	1404.998	823385.647	576371.569
2	1405.536	825429.336	576324.974
3	1405.285	823492.010	576254.124
4	1405.317	823510.665	576232.041
5	1405.919	823553.074	576181.303
6	1407.017	823619.970	576109.001
7	1406.951	823699.805	576021.676
8	1407.772	823750.769	575963.022
9	1408.435	823860.463	575846.704
10	1409.226	823895.602	575820.619
11	1410.668	824037.603	575689.747
12	1411.121	824137.046	575579.644
13	1411.699	824208.177	575510.812
14	1411.853	824278.223	575420.863
15	1412.775	824366.084	575325.763
16	1414.797	824528.620	575158.511
17	1415.026	824650.113	575029.359
18	1414.919	824715.097	574952.921
19	1414.551	824778.165	574883.753
20	1449.569	825889.028	576571.646
21	1447.453	825762.089	576441.641
22	1447.754	825736.889	576383.914
23	1449.819	825869.292	576334.259
24	1450.014	825889.618	576390.677
25	1517.496	827764.097	576197.730
26	1517.220	827805.762	576568.549
27	1516.495	827878.956	576515.250